

REMARKS

Claims 1-20 stand rejected. New claims 21-23 are being added. Therefore, claims 1-23 will be pending in the present patent application after entry of this amendment.

Objection to the Claims

Claim 15 was objected to as improperly depending from claim 12. Claim 15 has been amended to depend from claim 14 as suggested by the examiner.

Rejection Under 35 U.S.C. §102

Claims 1-3, 5, 6, 10 and 11 were rejected under 35 U.S.C. §102 as being anticipated by the Warburton patent.

The present invention relates an apparatus for a wheelchair as shown in Figure 1 of the application which has a pair of padded hip supports 32 and 34 on opposite sides of the wheelchair seat 19 which position and abut the hip of a person seated in the wheelchair. Note that the hip supports are immediately above the seat where the person's hips will be located and have adjustable brackets to locate the supports laterally and compensate for users of different widths. In addition to having padding, each hip support has a flexible arm 40 with a mechanism, such as a seatbelt, to secure the two arms together across the lap of the wheelchair user.

This structure is in sharp contrast to Warburton's vest-like upper body support with shoulder belts for securing a person in a chair. That apparatus has left and right panels 16 and 18 which fit under the armpit of the user and extend downward to his or her waist. The panels extend around the front of the person's torso and are fastened

together by a buckle 22 forming a vest-like restraint. As clearly shown in Figures 1 and 2 of the patent, the apparatus does not engage the hips of the person and thus does not position or support the hips. While the Warburton apparatus is appropriately named and described as a support apparatus for a torso of the person, the presently claimed hip control apparatus does not confine the person's torso which is able to freely turn and move without restraint. Therefore, the Warburton patent does not teach the fundamental concept of the present invention - padded supports that position the hips of the person seated in a wheelchair.

Furthermore, claim 3 specifically states that each of the hip supports comprises a main portion abutting the hip of the person with a flexible arm projecting from that main portion. This structure is not taught by the Warburton device which has a vest-like affair that is fastened around the torso above the person's waist.

With respect to independent claim 5 the Warburton patent does not teach the first and second hip supports that each have a resilient pad for cushioning a hip of the person seated on the wheelchair. As clearly shown in Figures 1 and 2 of that patent, the chair does not provide side hip supports and nothing other than the seat bottom provides any cushioning of the person's hip region. Furthermore, the Warburton patent does not have resilient pads in addition to a flexible resilient arm.

Similarly regarding claim 6, nothing other than the seat bottom in the Warburton patent abuts the pelvic region of the person, as all of its support apparatus extends above the person's hips. Furthermore, both of the left and right side vest members 16 and 18 are described as a lightweight flexible cushion material, e.g. foam covered by Naugahyde,

which is specifically described as providing lumbar support (column 3, lines 55 – 65).

Therefore, the flexible nature of the material does not provide any support for the hips of the person, as opposed to the person's lumbar region above the hips.

Therefore, an apparatus for supporting the torso, specifically the lumbar region, of a person seated in a chair does not teach the present hip control apparatus which supports and positions the hips of the person. In fact the Warburton device provides no support or positioning of the user's hips. As a consequence, the cited claims are patentable under 35 U.S.C. §102.

Rejections Under 35 U.S.C. §103

Claims 12, 13 and 18 have been rejected under 35 U.S.C. §103 as unpatentable over Warburton in view of Klearman *et al.*

As noted previously, the Warburton patent describes an apparatus that extends only around the upper torso of a person seated in a chair to provide support for lumbar region of the body. It does not provide any hip support. Likewise the device in Klearman *et al.* is described as being a support apparatus for a patient's torso (see abstract). Furthermore, as clearly seen in Figure 1 of the second patent, the wheelchair frame has rigid vertical panels on both sides of the seat which provide the primary support and restraint of the hips of a person seated in the wheelchair. Of great significance also is the fact that the upper torso restraint member 24 has Velcro straps 66 and 68 that fasten about the chest of a person seated in the wheelchair to confine that person's upper torso. As a consequence that apparatus also does not have a seatbelt with segments that fasten together across the person's lap, just as Warburton does not have such a seatbelt.

In addition, claim 12 specifies that each of the first and second hip supports has a plate structure that extends through both the main portion and the arm of the respective support. Warburton support does not have any plate and is made entirely of a flexible cushion material. Although the Klearman *et al.* device has a support panel 52, that component extends only within the main portion of constraint member and does not extend through anything that would be considered as a resiliently flexible arm.

Claim 13 recites that the different segments of the seatbelt are coupled to the plate structure within the first and second hip supports. For example as shown in Figures 2 and 3 of the patent application, the seatbelt 60 is secured to the arm plate 44 by a bolt and bracket. In contrast, the Klearman *et al.* support panel 52 is simply inserted into a pocket in the restraint member 24 and the straps 66 and 68 which the rejection contends correspond to the seatbelt are extensions of the cover for the restraint member. Therefore the seatbelt is not coupled to the removable support panel.

For these reasons, even when the teachings of Klearman *et al.* are combined with those of Warburton, there is no suggestion of the structure recited in claims 12, 13 and 18 and thus those claims are patentable under 35 U.S.C. §103.

Claims 4, 7-9, 14, 15, 19 and 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Warburton in view of Klearman *et al.* and further in view of Keropian.

With respect to claim 4, as noted previously neither Warburton nor Klearman *et al.* teaches a hip control apparatus with padded hip supports on opposite sides of a wheelchair seat, nor a seatbelt that secures arms of those supports across the lap of a person seated in the wheelchair. Keropian also teaches a device that supports and confines the upper torso

of a person in a wheelchair and its side panels 16 do not extend below the arms of the wheelchair, nor near the hips of the person seated therein. Furthermore, the seatbelt in Keropian extends across the upper torso of the wheelchair occupant in a position well above that person's navel. As a consequence even when Keropian is combined with the teachings of the other two references, nothing teaches the hip support arrangement with a seatbelt that extends across the wheelchair user's lap.

Furthermore, claims 4 and 7-9 state that each hip support has a resiliently flexible primary plate extending through both the main portion and the flexible arm of the respective hip support. Keropian teaches merely a single curved plate 66 with a pad thereon that extends along side of the person's torso but not the hips. That plate 66 is rigid (column 3, lines 34-35) and thus is not resiliently flexible as required in these claims. In addition, nothing in the third reference corresponds to a flexible secondary plate which cooperates with the primary plate to provide regions of different flexibility. Therefore, even when the three patents are combined there is no suggestion of the multi-plate structure for each support in claims 4 and 7-9.

Claims 14, 15, 19 and 20 depend from claim 12 which recites a fundamental structure that is patentable for the reasons stated above regarding that prior claim. In addition claims 19 and 20 recite each support having flexible primary and secondary plates which cooperate to provide regions of different flexibility and this structure is not suggested by the combination of the three references.

In view of these distinctions, even when the teachings of three references are combined nothing suggests the unique structure specified in the present application.

Claim 16 was rejected under 35 U.S.C. §103 as being unpatentable over Warburton in view of Klearman, *et al.* further in view of Allum.

Allum, like the other two patents, teaches a chair restraint system that extends across torso of a child seated in the chair. As a consequence, even when Allum is combined with the other two patents, nothing suggests the hip support recited in parent claim 12 that abuts the person's hips and has a seatbelt that extends across the lap, as opposed to the torso, of the seat occupant. Therefore, while it might be obvious to add a torso belt structure of Allum to the torso confining devices of Warburton and Klearman, *et al.*, that still would not suggest the hip control apparatus recited in claim 16.

Claim 17 was rejected under 35 U.S.C. §103 as being unpatentable over Warburton in view of Klearman, *et al.*, and further in view of Hammersburg. As with the other patented devices, Hammersburg teaches a torso support apparatus having pads that fit under the armpits of the wheelchair occupant, but which do not extend significantly below the arms of the wheelchair, and thus do not support or abut the hips of the occupant. The fastening belt 150 also extends across the torso of the person rather than his or her lap. Note that this structure is to be utilized with a conventional wheelchair having a frame with rigid vertical panels on opposite sides of the seat which provide hip support. However, those panels do not structurally correspond to the claimed hip supports. Thus, the addition of the third reference does not cure the deficiency in the other patents with respect to the fundamental structure of the hip control apparatus recited in parent claim 12.

Moreover, there is nothing in the references that suggests to one of ordinary skill in the art how to combine the rigid lateral torso support pads of Hammersburg

with the flexible vest-like device in Warburton. Nor is it seen how the individual pads of Hammersburg could be substituted for the cylindrical orthotic brace in Klearman, *et al.* without completely discarding the restraint 24 taught by the latter patent.

As a consequence, not only does the combination of the three references not teach the fundamental structure of the hip control apparatus in claim 17, it is unclear how or why a skilled artisan would combine their teachings.

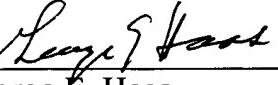
The New Claims

New claims 21-23 specifically state that the torso of the person seated in the wheelchair is unrestrained by the hip control apparatus. That clearly is not true of the various restraints taught in the Warburton, Klearman *et al.*, Keropian, Allum, and Hammersburg patents cited in the recent Office Action. As a result, the subject matter of these new claims is patentable.

Conclusion

In view of these distinctions between the subject matter of the present claims and the teachings of the cited patents, reconsideration and allowance of the pending application are requested.

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